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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/562,133 | 12/23/2005 | David B. Duperray | US0 30186 US2 | 5554 |
| 24738 | 7590 | 02/09/2009 | EXAMINER | |
| PHILIPS INTELLECTUAL PROPERTY & STANDARDS | | | LE, LANA N | |
| PO BOX 3001 | | | ART UNIT | PAPER NUMBER |
| BRIARCLIFF MANOR, NY 10510-8001 | | | 2614 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/562,133 | DUPERRAY, DAVID B. | |
| | Examiner | Art Unit | |
| | Lana N. Le | 2614 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 17 November 2008.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-12 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (U.S. 2006/0240786) in view of Nagode (US 7,116,951) in view of Flanagan (US 5,574,990).

With respect to claim 1, Liu discloses a communication method that obtains unwanted intermodulation distortion products from an amplifier element 116, (Paragraph 19). Liu also discloses obtaining an intermodulation distortion product measurement and determining its affect on the communication system such as the amplifier linearity (Paragraphs 14 and 45). Liu does not disclose controlling the amplifier to reduce output signal distortion for data rates higher than the desired data rate but not for data rates below the desired data rate. In the same field of endeavor, Nagode discloses controlling the amplifier to reduce output signal distortion for data rates higher than the desired data rate (col 3, lines 53-67). Liu and Nagode do not disclose reducing output signal distortion not for data rates below the desired data rate. In related art, Flanagan discloses reducing output signal distortion is not needed at low data rate (col 1, lines 40-45). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to control the amplifier to reduce output signal distortion for higher data rates in order to compensate for noise enhancement which becomes intolerable at higher data rates and not at lower rates as suggested by Flanagan.

With respect to claim 2, Liu discloses adjusting the amplifier linearity to fall within the acceptable range (Paragraph 45).

With respect to claim 3, Liu discloses adjusting the amplifier control signal in response to determining the acceptable error vector magnitude and desired third-order intercept point value (Paragraph 60).

With respect to claim 4, Liu discloses a leakage path (Paragraph 111).

With respect to claim 5, Liu discloses converting the signals from the time domain to the frequency domain (Paragraph 72).

With respect to claim 6, Liu teaches transmitting the transmit tones, which must be converted from the frequency domain to the time domain thus using an IFFT operation (Paragraph 14).

With respect to claim 7, Liu discloses a communication apparatus with an amplifier, element 116, which produces unwanted intermodulation distortion products (Paragraph 19). Liu also discloses obtaining an intermodulation distortion product measurement and determining its affect on the communication system such as the amplifier linearity (Paragraphs 14 and 45). Liu does not disclose means for controlling the amplifier to reduce output signal distortion for data rates higher than the desired data rate but not for data rates below the desired data rate. In the same field of endeavor, Nagode discloses means for controlling the amplifier to reduce output signal

distortion for data rates higher than the desired data rate (col 3, lines 53-67). Liu and Nagode do not disclose reducing output signal distortion not for data rates below the desired data rate. In related art, Flanagan discloses reducing output signal distortion is not needed at low data rate (col 1, lines 40-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to control the amplifier to reduce output signal distortion for higher data rates in order to compensate for noise enhancement which becomes intolerable at higher data rates and not at lower rates as suggested by Flanagan.

With respect to claim 8, Liu discloses adjusting the amplifier linearity to fall within the acceptable range (Paragraph 45).

With respect to claim 9, Liu discloses adjusting the amplifier control signal in response to determining the acceptable error vector magnitude and desired third-order intercept point value (Paragraph 60).

With respect to claim 10, Liu discloses a leakage path (Paragraph 111).

With respect to claim 11, Liu discloses converting the signals from the time domain to the frequency domain (Paragraph 72).

With respect to claim 12, Liu teaches transmitting the transmit tones, which must be converted from the frequency domain to the time domain thus using an IFFT operation (Paragraphs 14-15).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lana N. Le whose telephone number is (571) 272-7891. The examiner can normally be reached on M-F 10:00-18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A. Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lana N. Le/
Primary Examiner, Art Unit 2614